

**From:** [FRUEH Terry](#)  
**To:** [JEPSEN David B](#); [FOSTER Eugene P](#); [Henning, Alan](#); [jeffrey.lockwood@noaa.gov](mailto:jeffrey.lockwood@noaa.gov); [SEEDS Joshua](#)  
**Subject:** FW: Board Workshop 23 June  
**Date:** Thursday, June 12, 2014 10:45:35 AM  
**Attachments:** [Map ODF headquarters.pdf](#)  
[Summary and Questions June 23 2014 BOF Workshop.pdf](#)  
[Public Agenda June 23 2014 BOF Workshop.pdf](#)

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I forgot to mention: The workshop will be in the Tillamook Room, Building C, 2600 State St., Salem (see attached map). Also, you are invited to join us for a complimentary lunch with the Board, staff, and other presenters.

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**From:** FRUEH Terry  
**Sent:** Tuesday, June 10, 2014 12:00 PM  
**To:** 'SEEDS Joshua'  
**Cc:** FOSTER Eugene P; 'Henning, Alan'; 'Jeffrey Lockwood - NOAA Federal'; DAUGHERTY Peter; JEPSEN David B  
**Subject:** FW: Board Workshop 23 June

Josh,

Please coordinate with NOAA, EPA, and ODFW for who will cover what for how long for the presentations for Topic 2 (see attached Public Agenda and associated Summary and Questions documents), and then get back to us with the approach you will take. These agencies plus DEQ will have a maximum of 40 minutes of presentation time (less time is better to allow more Board discussion), with 20 minutes of Q&A plus discussion for the Board. The Summary and Questions document outlines what info your group needs to cover in Topic 2, knowing that you might not be able to address all Board questions if they are very much down in the weeds. The attached email provides direction of what we are looking for from the presenters.

Please let me know if you have any questions.

Thanks,

Terry

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**From:** FRUEH Terry  
**Sent:** Tuesday, June 10, 2014 9:21 AM  
**To:** 'Chris Surfleet'  
**Subject:** Board Workshop 23 June

Dear Chris,

Thanks for agreeing to present at the Board of Forestry workshop on June 23, 2014. The workshop is fast approaching, and I have attached the agenda and a summary and questions document, which contains the questions the Board has asked about topics related to riparian protection and the rule analysis. The agenda is full, so we will have a facilitator to keep this workshop moving at a decent pace and maintaining the Q&A at an appropriate level of detail for this workshop.

For the presentations, we are looking for a very high level summary of the science of Forest Practices effects on stream temperature on small and medium fish streams in the Watersheds Research Cooperative (WRC) studies (Hinkle and Alsea; Trask only looks at small non-fish

streams). The Board questions should help you focus the presentation, although some of the questions do get down in the weeds, so specifically addressing them may be challenging at a high level. You will have 15 minutes to present followed by 20 minutes of board questions and discussion following all 3 temperature presenters. We recognize this may seem daunting to cover the topic in such a short time, so think of this more as an elevator speech: **start with key conclusions, state very briefly why they are correct, and let the Board know what you have to help them understand your knowledge space.**

The purpose of these presentations is to both answer the Board's questions, and to stimulate their subsequent discussion and any follow-up questions they may have. With questions the Board asks at the workshop, we request you keep your responses concise and to the point – there is insufficient time to delve into all the details and support of every response.

**Please arrive at the Tillamook Room (Building C; see attached map) 30 minutes before your topic (i.e., 8:30 AM), and remain throughout the entire topic in which you are slated to speak (i.e., to 11:15 AM).** As this is a public meeting, you are welcome to stay as long as you wish outside of this time window.

If you put together a PowerPoint presentation, **please send that to me by 8 AM on June 19<sup>th</sup>.** We would like to send the Board a packet of material with brief descriptions of presentations, and thus we would appreciate **your emailing a 250 word abstract on your presentation by 4 PM, June 17<sup>th</sup>.**

**Please confirm your receipt of this email,** and let me know if you have any questions.

Thanks,

Terry

W. Terry Frueh

Monitoring Specialist

Oregon Dept. of Forestry/Private Forests Monitoring Group

2600 State St., Bldg D

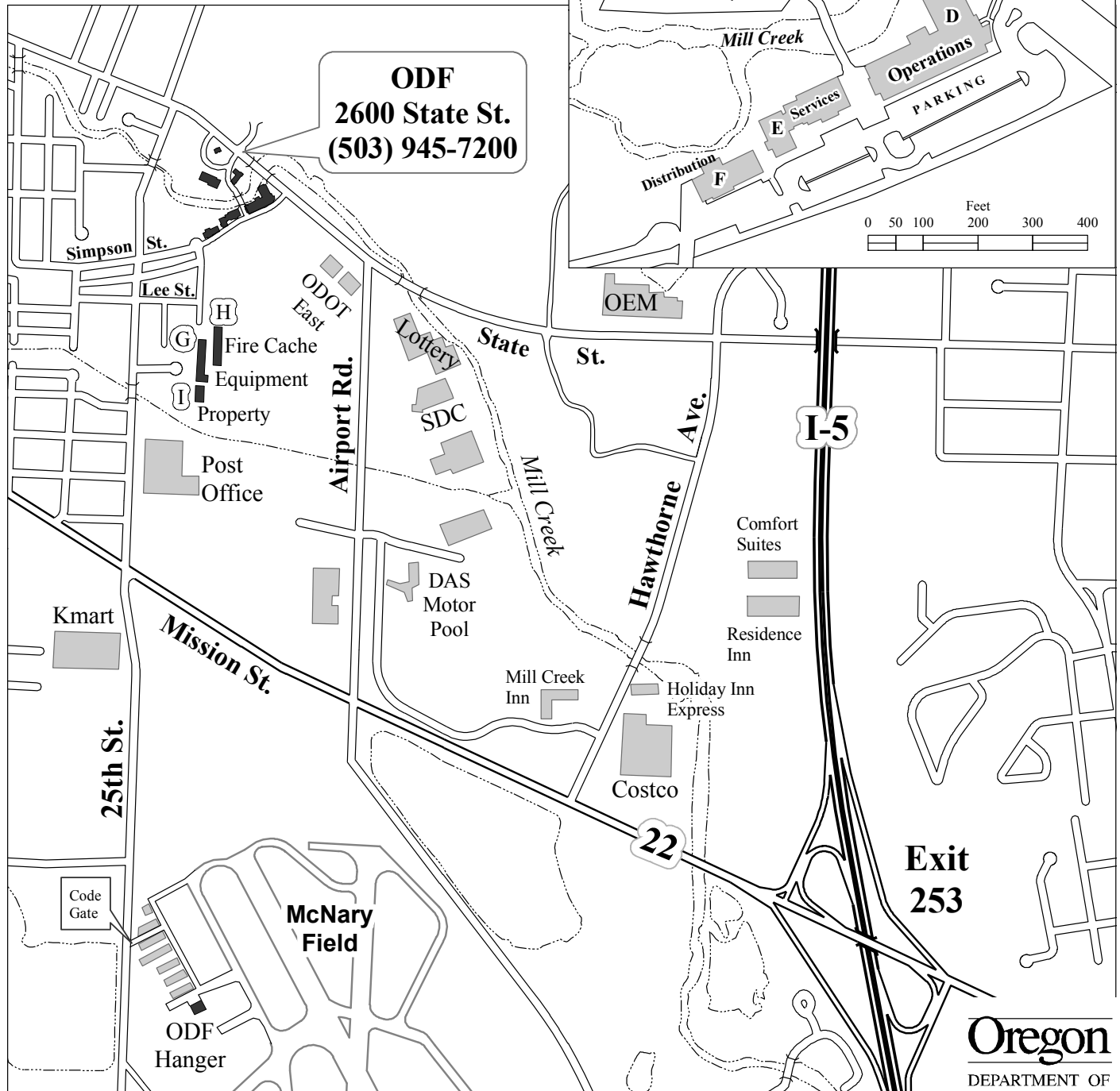
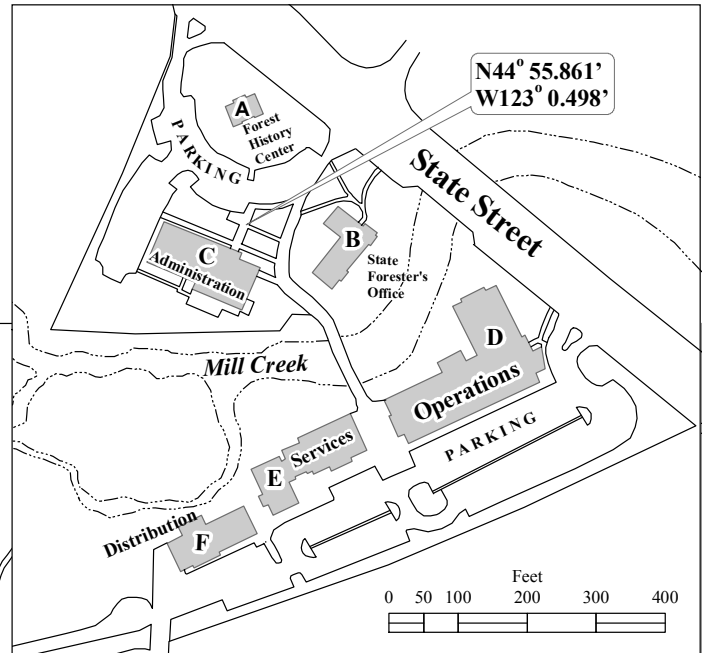
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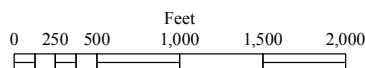
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# Oregon Department of Forestry Salem Headquarters



1/11/2007



**Oregon**  
DEPARTMENT OF  
FORESTRY

2600 State Street  
Salem, Oregon 97310

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**Oregon Board of Forestry  
Riparian Rule Analysis Workshop  
Monday June 23, 2014  
8:30 AM - 5 PM  
Tillamook Room, Oregon Department of Forestry Campus, Salem, OR**

**Workshop Goal** - Assist the Board of Forestry (Board) in understanding available information regarding their rule analysis process for protecting cold water, including:

- Effects of contemporary forest practices on stream temperature and biota
- Scientific and policy underpinnings of the DEQ Protecting Cold Water criterion
- Legal and policy roles and decision space for water-quality protection
- Understanding the continuum of stakeholder perspectives
- Policy choices and potential outcomes

**Agenda**

**8:30 - 9:00 Purpose and Background of the Workshop**

**Objective** - Set purpose and expectations for the workshop, Board will understand the history and context of decisions on rule analysis.

**Speakers:**

- Tom Imeson, Board Chair; Peter Daugherty, Oregon Department of Forestry; Doug Zenn, Facilitator

**9:00 – 11:15 Topic 1 – Effects of contemporary forest practices on stream temperature and biota**

**Objective** – The Board will be able to summarize the findings of contemporary forest practices on stream temperature and biota and stream temperature effects on fish biology as portrayed in:

- Forestry Science on Temperature and Fish
- Watershed research cooperative results
- ODF RipStream results (all temperature findings)

**9:00 – 10:00 Forest Practices Effect on Temperature, Presenters:**

- Science Review on temperature results - Terry Frueh , Oregon Department of Forestry
- WRC Research results on temperature - Chris Surfleet, California Polytechnic State University
- RipStream findings (Numeric criteria, PCW, temperature change magnitude, downstream, predictive temperature model) - Jeremy Groom, Oregon Department of Forestry

**10:00 10:15 Break**

**10:15-11:15 Temperature and Fish biology, Presenters:**

- Science Review on temperature and fish (high level), including how WRC Research results inform this science - Jason Dunham, United States Geological Survey; Doug Bateman, Oregon State University
- Condition and Trends in Salmon Habitat in western Oregon - Kim Jones, Oregon Department of Fish and Wildlife

**11:15 - 12:15 Topic 2 – Scientific and policy underpinnings of the Protecting Cold Water (PCW) criterion of Oregon’s Water Quality Temperature Standards**

Objective – The Board will understand the basic underpinnings of the PCW criterion:

- The biological basis/protection of natural thermal regimes
- Policy regarding risk of warming waters of the state – importance to maintaining diversity of temperature
- Acceptable range of spatial/temporal/magnitude temperature changes
- Spatial extent of PCW protections
- Recent legal review of temperature standards
- Relation to Clean Water Act and position of relevant Federal agencies
- Role of federal agencies, Environmental Protection Agency (EPA) and National Oceanic and Atmospheric Administration (NOAA) in reviewing and approving water quality standards

Presenters:

- Josh Seeds and Gene Foster, Oregon Department of Environmental Quality
- Dave Jepsen, Oregon Department of Fish and Wildlife
- Dr. Kim Kratz and Jeff Lockwood, NOAA Fisheries
- Dan Opalski and John Palmer, EPA

**12:15 – 1:15 Lunch**

**1:15 – 2:15 Topic 3 - Legal and policy roles and decision space for water-quality protection**

Objective –The Board will understand their roles and decision space, and those of the Environmental Quality Commission (Commission), including:

- Relationship between ORS 527.714 and 527.765, degradation of resources and interaction with water quality standards, meaning of maximum extent practicable, and factors that need to be considered
- Commission process for establishing standards
- Board responsibilities for establishing BMPs to meet water quality standards
- Board and Commission petition process

Panel:

- Matt Devore – Oregon Department of Justice
- Larry Knudsen - Oregon Department of Justice
- Richard Whitman – Governor’s Natural Resource Office

## **2:15 – 4:00 Topic 4 – Stakeholder policy perspectives and concerns**

Objective – The Board will understand the continuum of stakeholder perspectives.

Presenters – Landowner community and conservation community representatives. Each group will select panelists and will have 30 minutes for presentation, followed by 15 minutes of Board discussion and questions.

### 2:15 – 3:00 Conservation Community, Presenters:

- Policy and Legal: Mary Scurlock
- Science: Chris Frissell
- Economics: Bob Rees

## **3:00 – 3:15 Break**

### 3:15 – 4:00 Landowner Community, Presenters:

- To Be Determined

## **4:00 – 5:00 Topic 5 - Policy choices and potential outcomes based on the above topics (1 hour)**

Objective – The Board will understand the range and potential outcomes of policy choices and have a facilitated Board discussion about what was learned today and how that informs their thinking.

### Overview of policy choices and potential outcomes

- Types of alternatives, e.g. no change, modify FPA rules and BMPs, voluntary measures
- Geographic extent; stream reach extent
- Potential differential impacts based on ownership and/or region

### Presenter:

- Peter Daugherty – Oregon Department of Forestry

### Board discussion about what was learned today and how that informs their thinking

- Facilitated discussion
- Board members closing thoughts

### Panel:

Board members; Doug Zenn, Facilitator

**Oregon Board of Forestry  
Riparian Rule Analysis Workshop  
Monday June 23, 2014**

**Topic Summary and Board Questions**

**Workshop Goal** - Assist the Board in assimilating available information regarding the

- Effects of contemporary forest practices on stream temperature and biota
- Scientific and policy underpinnings of the DEQ Protecting Cold Water criterion
- Legal and policy roles and decision space for water-quality protection
- Understanding the continuum of stakeholder perspectives
- Policy choices and potential outcomes

**Agenda**

**8:30 - 9:00 Purpose and Background of the Workshop**

Objective - Set purpose and expectations for the workshop, Board will understand the history and context of decisions on rule analysis.

Summary:

Board Chair Tom Imeson will review purpose and expectations for the workshop.

This topic will provide a history of Board action leading up to the current riparian rule analysis, with a summary of Board decisions to date. The topic will also provide the context of the rule analysis, including the Board's vision and policy statements and goals of the water protection rules.

Facilitator Doug Zenn will discuss logistics and approach of the workshop.

Board questions:

- What is the Board history of decisions that led us to this point? What are the intersections of these decisions with other state and federal agency actions?
- What are the concerns driving the rule analysis? Are these policy/legal concerns or concerns based on measured impacts to beneficial use?

**9:00 – 11:15 Topic 1 – Effects of contemporary forest practices on stream temperature and biota**

Objective – The Board will be able to summarize the findings of contemporary forest practices on stream temperature and biota and stream temperature effects on fish biology.

Summary:

*9:00 – 10:00 Forest Practices Effect on Temperature*

This topic will provide an overview of the status of science on forest practices on stream temperature. The first presentation will summarize key results from studies covered in the systematic review. This presentation will be followed by a presentation on the WRC Research

results on stream temperature and a review of the results from the Riparian Function and Stream Temperature (RipStream) study.

Board questions:

- What can the researchers tell us about the results of the Paired Watershed studies, and the RipStream study, and whether they are consistent or inconsistent on the issue of compliance with the PCW, as well as generally what the study limitations are (i.e., what the various studies can and cannot tell us)?
- What are the outcomes of ODF's predictive model? What are its policy implications for the stream protection rules, and how do its findings compare to other available relevant policy analysis?
- What is the scientific foundation of RipStream's modeling choices? What are the uncertainties in the RipStream-based model, and what key questions remain to be investigated?
- Is basal area a reasonable surrogate for shade production, which is then the primary predictor in change in stream temperature? What other variables should RipStream model include that are not currently there (e.g., aspect, crown size, understory vegetation)?

**10:00 10:15 Break**

Summary:

*10:15-11:15 Temperature and Fish biology*

- This topic will present a high-level overview of the science on temperature and fish, including how the WRC Research results inform this science. This presentation will be followed by a presentation on the condition and trends in salmon habitat in western Oregon. What is the relationship between statistically significant change and biologically significant change related to management effects? If what happens to fish is more important than what happens to water temperature, how can we frame / understand the science on temperature and fish?
- How do the results of the Paired Watershed studies of fish response to management, using the modern technique of PIT tagging fish in live streams and monitoring them over a series of years pre and post-harvest, inform our general understanding of fish response to temperature change?
- What is the status of fish in Oregon waters, and what can NOAA and ODFW tell us about the recovery needs of listed salmonids, including salmon, steelhead and bull trout?

**11:15 - 12:15 Topic 2 – Scientific and policy underpinnings of the Protecting Cold Water (PCW) criterion of Oregon's Water Quality Temperature Standards**

Objective – The Board will understand the basic scientific and policy underpinnings of the PCW criterion:

- The biological basis/protection of natural thermal regimes
- Policy regarding risk of warming waters of the state – importance to maintaining diversity of temperature

- Acceptable range of spatial/temporal/magnitude temperature changes
- Spatial extent of PCW protections
- Recent legal review of temperature standards
- Relation to Clean Water Act and position of relevant Federal agencies
- Role of federal agencies, Environmental Protection Agency (EPA) and National Oceanic and Atmospheric Administration (NOAA) in reviewing and approving water quality standards

Summary:

DEQ staff will present information on the factors affecting stream temperature, the effects of stream temperature on aquatic biology and ecology, and how Oregon's temperature standard is constructed to maintain and restore natural thermal regimes. In addition, staff will present information on the scientific and policy basis for the Protecting Cold Water criterion and how temperature TMDLs are used as a tool to restore natural thermal regimes to meet temperature water quality standards and support beneficial uses throughout basins.

The EPA and NOAA staff will discuss the relation of PCW criterion to the Clean Water Act, the role of federal agencies in reviewing and approving water quality standards, and the position of their agencies.

Board Questions:

- What is the biological basis of the PCW standard?
- If fish are the beneficial behind the PCW, and its threshold does not degrade their environment, is it appropriate to use the PCW threshold of 0.3°C to characterize degradation?
- How significant are RipStream findings in terms of degradation of beneficial uses?
- How does this potential riparian rule change relate to and contribute to Endangered Species Act recovery goals?
- Does this riparian rule process relate to the NOAA/EPA proposal to disapprove the State of Oregon's nonpoint pollution control program, if so, how?
- What is the significance of a potential NOAA/EPA disapproval?

**1:15 – 2:15    Topic 3 - Legal and policy roles and decision space for water-quality protection**

Objective –The Board will understand their roles and decision space, and those of the Environmental Quality Commission (Commission), including:

- Relationship between ORS 527.714 and 527.765, degradation of resources and interaction with water quality standards, meaning of maximum extent practicable, and factors that need to be considered
- Commission process for establishing standards
- Board responsibilities for establishing BMPs to meet water quality standards
- Board and Commission petition process

Summary:

A panel of Matt Devore and Larry Knudsen from the Oregon Department of Justice, and Richard Whitman, Governor Kitzhaber's Natural Resources Advisor will answer the Board's questions and be prepared to engage the Board in a discussion about Oregon's policy on water quality.

Board Questions:

- What are the respective authorities and obligations on the issue of forest management and protecting water quality?
- Is not meeting a water quality standard sufficient reason for finding degradation of resources? What discretion does the Board have in determining degradation of resources?
- What discretion does the Board have in meeting the water quality standards? What discretion does the Board have in the meaning of maximum extent practicable, and factors that need to be considered?
- Is the concept of drafting the rule keyed on where the PCW standard has been established a legally defensible approach to meeting our Clean Water Act obligations?
- Should the Board decide that the PCW criterion is inappropriate/outdated and petition the Environmental Quality Commission (EQC) to update it, what happens then?
- How can the Board interface with EQC regarding potential changes needed?
- Should the EQC, after examining recent evidence regarding stream temperature change effects on fish, agree that it is time to revise the criterion, does so and the Environmental Protection Agency disapproves a new criterion, what happens then?
- How do we reconcile legislative intent for the Forest Practices Act (i.e., to provide for the "overall maintenance" of resources and recognizes that there will be temporary and measureable forest management impacts) with an anti-degradation water quality standard that allows for no measureable human impact?
- How do we maintain Board policy to include voluntary solutions? Can the Board rely solely on voluntary BMPs to meet the PCW criterion?

**2:15 – 4:00 Topic 4 – Stakeholder policy perspectives and concerns**

Objective - The Board will understand the continuum of stakeholder perspectives.

Presenters: Landowner community and conservation community representatives. Each group will select panelists and will have 30 minutes for presentation, followed by 15 minutes of Board discussion and questions.

2:15 – 3:00 Conservation Community

**3:00 – 3:15 Break**

3:15 – 4:00 Landowner Community

**4:00 – 5:00 Topic 5 - Policy choices and potential outcomes based on the above topics (1 hour)**

Objective – The Board will understand the range and potential outcomes of policy choices and have a facilitated Board discussion about what was learned today and how that informs their thinking.

Summary:

ODF staff will provide a brief overview of the status of alternative development, the types of alternatives, e.g. no change, modify FPA rules and BMPs, voluntary measures. Staff will outline the policy choices the Board will have to make and the potential impact of these choices, including the geographic extent; stream reach extent; and potential differential impacts based on ownership and/or region.

Board Questions:

- What are the general rule alternatives? What alternatives is ODF considering for the rule analysis?
- How do ODF and DEQ identify the geographic extent of the PCW, including where in the state the PCW is in force?
- Are there disproportionate impacts of rule changes on varying regions or watersheds?
- Are there disproportionate impacts of a rule change to non-industrial landowners?

Summary:

The Board will have a facilitated discussion of potential policy questions and how they might be addressed. The Board will also discuss what was learned today and how that informs their thinking.

Board Questions:

- How does this information and new research affect the Board's decisions?
- How do we balance public benefit with landowner cost, especially considering the relatively small change in stream temperature we need to achieve?
- How do we minimize impacts to landowners? How do we encourage landowners to actively manage their riparian forests as part of this rule analysis?
- If there are disproportionate impacts on non-industrial landowners, how might we address these impacts at the Board level or in other forums while meeting the PCW?
- What is the potential to tier of some of the alternatives? Is it possible to design alternatives as an ongoing experiment to continue learning about the impacts of Board decisions?
- What are the costs of inaction or delay of a decision?